

REMARKS

The Examiner is respectfully requested to enter this Reply After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Reply After Final in that it places the application in better form for Appeal.

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

In the present application, claims 1-13 are pending. Claims 1 and 10 have been amended. No new matter has been added by way of these amendments because each amendment is supported by the present specification. For example, the amendments to claims 1 and 10 are supported by the present specification at page 4, lines 1-3 and page 7, lines 6-17. Thus, no new matter has been added.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues Under 35 U.S.C. § 112, First Paragraph

Claims 10, 12 and 13 stand rejected under 35 U.S.C. § 112, first paragraph, because the specification is asserted to not enable the full scope of the presently pending claims. Applicants respectfully traverse.

Applicants respectfully refer the Examiner to claim 10. The specification fully supports the scope of claims 10, 12 and 13 (claim 12 depends on claim 10, claim 13 depends on claim 1). Thus, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Issues Under 35 U.S.C. §§ 102(b) and 103(a)

Claims 10, 12 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent Application No. EP 0 690 096 A1 (hereinafter "EP '096") (the Office Action dated March 19, 2002 states that EP '096 is equivalent to U.S. Patent 5,700,861, or Tomihashi '861, and Japanese Application No. 6-264021 A, or JP '021).

Also, claims 10, 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '096 in view of Examiner's notice. The Examiner has taken notice that "the sodium salt of

bisphenol AF would be one of the well-known metal salts of bisphenol AF used in curing fluororubbers" (see Office Action dated March 19, 2002 at paragraph 15, page 5).

Applicants respectfully traverse both of these rejections.

The cited EP '096 reference discloses a vulcanizing aid (see page 4, lines 15-17), wherein DBU-b is disclosed as a quaternary ammonium salt. DBU-b is a strong base, whereby its addition to a fluoroelastomer curable coating composition enhances the elimination of HF from the fluoroelastomer. Thus, the fluoroelastomer is easily crosslinked and the composition quickly gels. The result of adding DBU-b is that the composition has a short pot life.

In contrast, the present invention uses an aqueous fluoroelastomer dispersion, a basic salt of a compound containing at least two phenolic hydroxyl groups as a curing agent, and a curing accelerator of quaternary salts of tertiary amines of the formula NR_3 with inorganic or organic acids or quaternary salts of tertiary amines of the formula $R_2N-R'-NR_2$ with inorganic or organic acids in the aqueous fluoroelastomer curable coating composition. The quaternary salt of the amine that is used as a curing accelerator for the present invention is a neutralized salt or

weakly basic. Thus, the elimination of HF from the fluoroelastomer is retarded, and not enhanced, in comparison with utilizing the vulcanizing aid of EP '096. Therefore, the present invention is more stable and has a longer pot life when compared to any composition of the EP '096 reference (whether combined with the Examiner's notice or not).

Thus, Applicants respectfully submit that the cited EP '096 reference fails to disclose all features as instantly claimed. Because "a claim is only anticipated if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," the cited EP '096 reference cannot be a basis for a rejection under § 102(b). See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Also, a proper obviousness inquiry requires consideration of three factors, including the factor that the prior art reference (or references when combined) must teach or suggest all the claim limitations. See *In re Vaeck*, 947 F.2d, 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991); see also *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316-17 (Fed. Cir. 2000). Thus, Applicants respectfully submit that the rejection under § 103(a) in view of the combination

of EP '096 and the Examiner's notice is also overcome for the same reasons mentioned above.

Further, Applicants respectfully traverse the Examiner's notice that "the sodium salt of bisphenol AF would be one of the well known metal salts of bisphenol AF used in curing fluororubbers". Also, one having ordinary skill in the art would not combine EP '096 with the Examiner's notice.

First, each of the cited references of Yamamoto (U.S. Patent No. 5,478,902), Sonoi '686 (U.S. Patent No. 4,929,686) and Kometani '913 (U.S. Patent No. 3,951,913) are far more removed from the present invention than the EP '096 reference.

Second, one having ordinary skill in the art would not combine EP '096 with the Examiner's notice because of the inconsistent features between the cited references. For example, Kometani '913 discloses (b) a metal compound, which EP '096 does not. Also, Sonoi '686 requires the oxide and hydroxide of divalent metal, and Yamamoto '902 requires a terpolymer of tetrafluoroethylene-perfluoro(methylvinylether)-1,1,3,3,3-pentafluororopropene, but EP '096 does not require these components. And EP '096 discloses a fluoropolyether oil, whereby none of the three other references require this oil.

Thus, Applicants respectfully submit that cited references do not equal the state of the art that sodium salts of bisphenol AF are well known and would be readily combined with the EP '096 reference. Thus, Applicants respectfully submit that not all requirements for a *prima facie* case of obviousness have been satisfied.

Accordingly, Applicants respectfully request the Examiner to reconsider, and to withdraw all rejections and allow the currently pending claims.

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that the Examiner pass the application to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

(Rev. 02/20/02)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

1. (Three Times Amended) An aqueous fluoroelastomer curable coating composition comprising an aqueous fluoroelastomer dispersion, [and] a basic salt of a compound containing at least two phenolic hydroxyl groups as a curing agent, and a curing accelerator selected from the group consisting of quaternary salts of tertiary amines of the formula NR_3 with inorganic or organic acids and quaternary salts of tertiary amines of the formula $R_2N-R'-NR_2$ with inorganic or organic acids, wherein each of said R groups is the same or different from each other and each is an alkyl or alkenyl group having 1 to 20 carbon atoms, or an aryl group having 6 to 20 carbon atoms, or two or more R groups together form a carbon ring or a heterocyclic group, and R' is an alkylene group having 2 to 21 carbon atoms or a phenylenedialkylene group having 8 to 12 carbon atoms;

wherein said aqueous fluoroelastomer dispersion in said coating composition comprises a fluorine-containing elastic copolymer having repeating units represented by the formula: $-CH_2-$ in the backbone.

10. (Three Times Amended) An article wherein at least a part of the surface of said article is coated with a coating layer formed from an aqueous fluoroelastomer curable coating composition;

wherein said coating composition comprises an aqueous fluoroelastomer dispersion, [and] a basic salt of a compound containing at least two phenolic hydroxyl groups as a curing [agent;] agent, and a curing accelerator selected from the group consisting of quaternary salts of tertiary amines of the formula NR_3 with inorganic or organic acids and quaternary salts of tertiary amines of the formula $R_2N-R'-NR_2$ with inorganic or organic acids, wherein each of said R groups is the same or different from each other and each is an alkyl or alkenyl group having 1 to 20 carbon atoms, or an aryl group having 6 to 20 carbon atoms, or two or more R groups together form a carbon ring or a heterocyclic group, and R' is an alkylene group having 2 to 21 carbon atoms or a phenylenedialkylene group having 8 to 12 carbon atoms;

wherein said aqueous fluoroelastomer dispersion in said coating composition comprises a fluorine-containing elastic copolymer having repeating units represented by the formula: $-CH_2-$ in the backbone.